AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method for producing hemostasis, tissue closure, and/or vessel closure following a percutaneous medical procedure wherein an access device is introduced to a patient creating a passageway, said method comprising the step of:

a) inserting an introducer sheath transcutaneously into an artery, thereby creating the passageway and an arteriotomy;

b) inserting a catheter through the passageway and arteriotomy to perform a transcatheter procedure;

~~a)~~c) inserting a thermal delivery probe into the passageway;

~~b) determining a site at which thermal energy should be applied;~~

d) ultrasonically interrogating a section of the passageway using pulsed Doppler;

e) advancing the thermal delivery probe down the passageway until the pulsed Doppler indicates that the probe is at a pre-determined distance from the arteriotomy;

~~c)~~f) emitting sufficient thermal energy to the arteriotomy site in order to raise native tissue temperatures; and

~~d)~~g) inducing tissue and/or blood coagulation at the site.

2. (CANCELED)

3. (CURRENTLY AMENDED) The method of claim ~~2~~1, wherein the passageway was created in order to access a femoral, brachial or peripheral vessel.

4. (CURRENTLY AMENDED) The method of claim 3, wherein thermal delivery probe has an outer diameter of about 4-10 French ~~or larger~~.

5. (ORIGINAL) The method of claim 4, wherein the emitted thermal energy is ultrasonically applied using a high frequency, high power output ultrasound transducer.

6. (CURRENTLY AMENDED) The method of claim ~~2~~1, wherein the emitted thermal energy is ultrasonically applied using a high frequency, high power output ultrasound transducer.

7. (ORIGINAL) The method of claim 5 or 6, wherein the high frequency, high power output ultrasound transducer is located at a distal end of the thermal delivery probe.

8. (ORIGINAL) The method of claim 5, wherein the high frequency, high power output ultrasound transducer is operated at about 6 MHz and output about 2 W/cm_2.

9. (ORIGINAL) The method of claim 6, wherein the high frequency, high power output ultrasound transducer is operated at about 6 MHz and output about 2 W/cm_2.

10. (CURRENTLY AMENDED) A method for producing hemostasis and tissue closure following a percutaneous medical procedure wherein an access device is introduced to a patient creating a passageway, said method comprising the following step:

a) inserting an introducer sheath transcutaneously into an artery, thereby creating the passageway and an arteriotomy;

b) inserting a catheter through the passageway and arteriotomy to perform a transcatheter procedure;

~~a)~~c) inserting a ultrasound probe into the passageway;

~~b) determining a site at which thermal energy should be applied;~~

d) ultrasonically interrogating a section of the passageway using pulsed Doppler;

e) advancing the thermal delivery probe down the passageway until the pulsed Doppler indicates that the probe is at a pre-determined distance from the arteriotomy;

~~c)~~f) emitting sufficient focused high intensity focused ultrasound energy to the arteriotomy site in order to raise native tissue temperatures; and

~~d)~~g) inducing tissue and/or blood coagulation at the site.

11. (CANCELED)

12. (CURRENTLY AMENDED) The method of claim ~~11~~10, wherein thermal delivery probe has an outer diameter of about 2-7 French ~~or larger~~.

13. (ORIGINAL) The method of claim 12, wherein the emitted thermal energy is ultrasonically applied using a high frequency, high power output ultrasound transducer.

14. (ORIGINAL) The method of claim 10, wherein the emitted thermal energy is ultrasonically applied using a high frequency, high power output ultrasound transducer.

15. (ORIGINAL) The method of claim 13 or 14, wherein the high frequency, high power output ultrasound transducer is located at a distal end of the thermal delivery probe.

16. (ORIGINAL) The method of claim 13, wherein the high frequency, high power output ultrasound transducer is operated at about 6 MHz and output about 2 W/cm_2.

17. (ORIGINAL) The method of claim 14, wherein the high frequency, high power output ultrasound transducer is operated at about 6 MHz and output about 2 W/cm_2.

18. (CURRENTLY AMENDED) A therapeutic medical device adapted to be inserted into a tissue passageway following a percutaneous medical procedure, comprising:

a) an elongated shaft having a proximal section, a distal section, a distal tip, ~~and~~ at least one lumen extending longitudinally from the distal tip to a proximal end located in the proximal section, a first opening in the proximal section in communication with the lumen, and a second opening on the distal tip in communication with the lumen, wherein the first and second openings and the lumen are configured such that the shaft may be threaded over a guidewire extending through the first opening and lumen and out the second opening;

b) a means for locating and determining a site at which thermal energy should be applied to promote hemostasis; and

c) a means for emitting sufficient thermal energy to the site thereby raising native tissue temperatures thereby inducing tissue and/or blood coagulation.

19. (CURRENTLY AMENDED) An insertable probe for delivering thermal energy comprising:

a) a elongated shaft having a proximal end, a distal end, ~~and~~ at least one lumen extending longitudinally ~~form~~ from said proximal end to said distal end, a first opening in the proximal section in communication with the lumen, and a second opening in the distal end in communication with the lumen, wherein the first and second openings and the lumen are configured such that the shaft may be threaded over a guidewire extending through the first opening and lumen and out the second opening; and

b) one or more ultrasound transducers positioned in the elongated shaft; said one or more ultrasound transducers comprising at least one therapeutic ultrasound transducer configured to emit high intensity ultrasound.

20. (ORIGINAL) The insertable probe of claim 19, further comprising a diagnostic ultrasound transducer adapted to ultrasonically interrogate a position in front of the elongated shaft distal end.

21. (CANCELED)